

**AMENDMENTS TO THE SPECIFICATION**

Please replace the present title with the following amended title:

OPTIMAL INSTRUCTION CREATION DEVICE  
OPTIMUM COMMAND  
PRODUCING APPARATUS

Please replace the paragraph no. [0045] of US Publication No. 2006/0015217 A1,  
with the following amended paragraph:

If  $D2 = 0$  is not set, the Equations (3) to (5) are changed into Equations (11) to (13).

$$X_{ref} = \frac{1}{D2 \cdot s + K2} \cdot \{K2 \cdot XL + D2 \cdot XL^{(1)} + J2 \cdot XL^{(2)}\} \quad \dots (11)$$

$$V_{ref} = \frac{1}{D2 \cdot s + K2} \cdot \{K2 \cdot XL^{(1)} + D2 \cdot XL^{(2)} + J2 \cdot XL^{(3)}\} \quad \dots (12)$$

$$T_{ref} = \frac{1}{D2 \cdot s + K2} \cdot \{(K2 \cdot XL^{(2)} + D2 \cdot XL^{(3)} + J2 \cdot XL^{(4)}) \cdot J1 + J2 \cdot K2 \cdot XL^{(2)}\} \quad \dots (13)$$

Please replace the paragraph no. [0067] of US Publication No. 2006/0015217 A1,  
with the following amended paragraph:

While  $L = 4$ ,  $N = 5$  or  $N = 2$ , and  $M = 1$  are set because the control object is set to have the 2-inertia system in the three embodiments described above, it is a matter of course that the apparatus can be applied to all other control objects. At that time, the ~~valuable~~ variables  $L$ ,  $N$  and  $M$  may have other values.